NGBU- CRET (2011) COURSE CONTENT FOR ELIGIBILITY TEST

There will be two papers in CRET-2011. The first paper will be on Research Methodology and a broad syllabus is as below :

(A) Course Content of Research Methodology Component

The main objective is to assess the research capabilities of he candidates. Therefore, the test is aimed at assessing research aptitude. They are expected to posses and exhibit cognitive abilities include comprehension, analysis, evaluation, understanding the structure of arguments and deductive reasoning. Candidates are expected to posses general awareness and knowledge regarding sources of information and basic quantitative techniques employed in research. Following are the broad components to be tested:

PAPER- I (I-IX)   **M.Marks : 70**

I. Research Aptitude
   i. Research : meaning, characteristics and types.
   ii. Step of research
   iii. Method of research
   iv. Research Ethics
   v. Paper, article, workshop, seminar, conference and symposium
   vi. Thesis writing : its characteristics and format.
   vii. Nature of research problem: theoretical research, experimental research, case study, survey.
II. Reading Comprehension
   A passage to be set with questions to be answered.
III. Library Resources and communication
   i. Different types of data and their sources.
   ii. Survey of literature.
   iii. Sources of information
   iv. Bibliography
   v. Communication : Nature, characteristics, types, barriers and effective report writing and communication.
IV. Reasoning (Including Mathematics)
   i. Number series : letter series, codes
   ii. Relationship; classification
V. Logical Reasoning
   i. Understanding the structure of arguments.
   ii. Evaluating and distinguishing deductive and inductive reasoning.
   iii. Verbal analogies : Word analogy - Applied analogy
   iv. Verbal classification

     v.   Reasoning Logical Diagrams : Simple diagrammatic relationship, multidiagrammatic Relationship

     vi.   Venn diagram ; Analytical Reasoning

VI.   Data Interpretation

     i.   Sources, acquisition and interpretation of data.

     ii.   Quantitative and qualitative data

     iii.   Graphical representation and mapping of data

VII.   Information and Communication Technology (ICT)

     i.   ICT : meaning, advantages, disadvantages and uses

     ii.   General abbreviations and terminology.

     iii.   Basics of internet and emailing

VIII. Basic Statistical Techniques

     i.   Uni-variate Analysis : Mean, Mode, Median, Standard Deviation

     ii.   Bivariate/Multivariate analysis : Correlation, Regression

     iii.   Probability and Probability distributions.

IX.   Educational Methodology

     i.   Teaching : Nature, objectives, characteristics and basic requirements.

     ii.   Learner's characteristics

     iii.   Factors affecting teaching

     iv.   Method of teaching

     v.   Teaching aids

     vi.   Evaluation systems

(B) COURSE CONTENTS OF FUNCTIONAL ENGLISH LANGUAGE　　　　　　　　**15 Marks**

(There shall be 5 MCQs to test Vocabulary (5 marks) and 10 MCQs to test Grammar Skills (10 marks)

- Parts of Speech and their Usages
    - i.   Nouns
    - ii.   Verbs
    - iii.   Adjectives
    - iv.   Adverbs
    - v.   Prepositions
    - vi.   Conjunctions
    - vii.   Interjections
    - viii. Pronouns
    - ix.   Articles
    - x.   Demonstratives
- Words and Word-formation Processes
    - i.   Prefixes
    - ii.   Suffixes
    - iii.   Infixes

iv. Inflections

v. Derivation processes (from category to another)

- Elements of Sentences (SVOCA)
    i. Subject
    ii. Verb
    iii. Object
    iv. Complement
    v. Adverbial

- Types of Sentences and its Structure
    i. Declarative sentences
    ii. Interrogative sentences
    iii. Imperative sentences
    iv. Exclamatory sentences; also,
    v. Simple sentences
    vi. Compound sentences
    vii. Complex sentences
- Usages of Tenses in English
    i. Present tense (Simple, Progressive and Perfective aspects)
    ii. Past tense (Simple, Progressive and Perfective aspects)
    iii. Expression of futurity
- Active and Passive Voice
- Direct and Indirect Speech

(C) COURSE CONTENTS FOR FUNCTIONAL KNOWLEDGE OF COMPUTER   15 Marks

(All three components shall have equal weightage)

1. **Computer Fundamentals**
    i. **Basics of Computer :** Block structure of a computer, characteristics of computers, generation of computers, classification of computers.
    ii. **Types of Computers :** Mainframe computer, Mini and Desktop computers, Laptop, Personal Digital Assistant, Networked computers in terms of capacity, speed, cost and end user's utility.
    iii. **Computer Performance :** Parameters that affect computer's performance - CPU execution speed, Clock speed, RAM size, Cache, Disc capacity etc.
    iv. **Character codes :** ASCII, EBCDIC
2. **Elements of Computer Processing System**
    i. **Processor :** Understanding some of the functions of the CPU in terms of calculations, logical control and immediate access memory.

ii. **Storage Devices and Media :** Compare the main types of memory storage devices in terms of speed, cost and capacity such as : diskette, Zip disk, data catridge, CD ROM, Internal- external hard disk, Magnetic Tape, Magnetic Disk.

iii. **Input-devices :** Various input devices : Mouse, Keyboard, Trackball, Scanner, Touch Pad, Light Pen, Joy Stick, Digital Camera and Microphone, etc.

iv. **Output -devices :** Printers, Plotter and Speaker, VDU etc.

v. **Input-Output Devices :** Touch Screens

vi. **Memory :** Understanding different type of memory (RAM, ROM, EPROM, EEPROM, Flash RAM etc.), Measuring Computer memory (Bit, Byte, KB etc.)

3. **Software**

i. **Types of Software :** System software, Application Software

ii. **Operating System Software :** Functions of OS and brief introduction of some OS. Batch, multi-programming, time sharing, multiprocessing, PC operating system, network operating system, on-line and real time operating System.

iii. **Application Software :** Common Application software such as : Word Processing, Spreadsheet, Database, Web browsing, Desktop publishing.

iv. **Programming paradigms and Languages :** classification , machine code, assembly language, programming paradigms and higher level languages.